

DOD¹	N/A	<ul style="list-style-type: none"> Did not perform an independent analysis, but did not dispute VMD findings 	N/A
MCI	<p><u>BEGIN PROPRIETARY</u></p> <p>*****</p> <p>*****</p> <p>*****</p> <p>*****</p> <p>*****</p> <p>*****</p> <p>*****</p> <p><u>END PROPRIETARY</u></p>	<ul style="list-style-type: none"> VMD did not provide evidence that the CLECs it identified are providing DS3 or DS1 level transport on specified routes; VMD incorrectly claims that any route on which the CLEC has placed fiber, the CLEC is providing DS1 and/or DS3 service (MCI Dir., p. 91); VMD assumes that “because all OCn-level fiber can be channelized to DS1 and DS3 transport, the CLECs are providing those types of transport” service (MCI Dir., p. 95); VMD does not provide evidence that the CLECs it identified provide dark fiber transport on the specified routes (MCI Dir., p. 96); VMD incorrectly assumes that “the existence of fiber on a route necessarily implies the presence of dark fiber because all fibers are construed with excess capacity in place” (MCI Dir., p. 96); VMD improperly includes all interstate routes (MCI Dir., p. 96). 	<p><u>BEGIN PROPRIETARY</u></p> <p>*****</p> <p>*****</p> <p>*****</p> <p>*****</p> <p>*****</p> <p>*****</p> <p>*****</p> <p><u>END PROPRIETARY</u></p>

¹ Department of Defense

**XO,
Xspedius,
Covad**

BEGIN PROPRIETARY

END PROPRIETARY

- Xspedius disagrees with Verizon's claim that Xspedius is a wholesale provider of five routes;
- XO does not provide transport to third parties between two incumbent local exchange carrier central offices;
- Covad does not provide dedicate transport service between incumbent LEC central offices;
- The primary function of an XO/Xspedius fiber ring is to move traffic from an aggregation point to the CLEC's switching or hub site;
- VMD's approach of identifying routes is deficient in that it presents no evidence that the CLEC in question is providing transport service between the two ILEC wire centers;
- If a carrier satisfies the self-provisioning trigger it does not automatically qualify as an eligible provider under the competitive wholesale facilities trigger or vice versa;
- Verizon does not identify the wholesale providers as operationally ready, whether carriers' services are "widely available";
- In case of a Commission findings of non-impairment on any particular route, then the Commission must establish an "appropriate period for CLECs to transition from any unbundled [loops or transport] that the state finds should no longer be unbundled." (Joint Dir. XO, Xspedius, Covad, p. 25)

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ATTACHMENT FK-D

SELF-PROVISIONING TRIGGER ANALYSIS

**THIS ATTACHMENT CONTAINS PROPRIETARY INFORMATION AND IS NOT
AVAILABLE FOR PUBLIC**

ATTACHMENT FK-E
WHOLESALE TRIGGER ANALYSIS

**THIS ATTACHMENT CONTAINS PROPRIETARY INFORMATION AND IS NOT
AVAILABLE FOR PUBLIC**

**Before the
Federal Communications Commission
Washington, D.C. 20554**

IN THE MATTER OF)	
<i>Unbundled Access to Network Elements</i>)	WC Docket No. 04-313
)	
<i>Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers</i>)	CC Docket No. 01-338

AFFIDAVIT OF FAINA KASHTELYN

I, Faina Kashtelyan, hereby make oath that the following facts, as set forth in this affidavit, are true to the best of my knowledge, information and belief.

1. I am over eighteen years of age, and am competent to testify and have personal knowledge of the facts as set out in this Affidavit.

2. I am a Regulatory Economist II of Telecommunications Division of the Staff of the Maryland Public Service Commission. My business address is 6 St. Paul Street, Baltimore, Maryland 21202.

3. I was a witness in Case 8983 before the Maryland Public Service Commission ("MDPSC") captioned *In the Matter of the Implementation of the Federal Communication Commission's Triennial Review Order*.

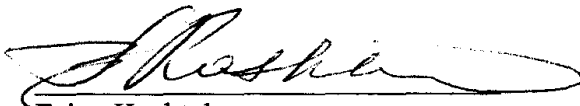
4. On March 12, 2004, I filed testimony in Case 8983 on behalf of the MDPSC Technical Staff.

5. On March 16, 2004, the Maryland Public Service Commission stayed Case 8983.

6. I affirm that the above-referenced pre-filed testimony was drafted by me or under my supervision and is true and accurate.

7. I prepared portions of the Summary of the Maryland Public Service Commission Staff's Impairment Analysis filed in the above-captioned matter and reviewed the entire document. I affirm that the Summary accurately summarizes the testimony I prepared for Case 8983.

I hereby declare under penalty of perjury that the foregoing Affidavit signed this 29 day of September, 2004, is true and correct to the best of my knowledge.



Faina Kashtelyan
Regulatory Economist
Telecommunications Division
Public Service Commission of Maryland
6 St. Paul Street, 16th Floor
Baltimore, Maryland 21202

STATE OF MARYLAND)
) TO WIT:
CITY OF BALTIMORE)

I HEREBY CERTIFY that on this 29 day of September, 2004, before me, a Notary Public for said State and City, personally appeared the affiant and made oath in due form of law that the matters and facts hereinabove set forth are true to the best of her knowledge, information and belief.


NOTARY PUBLIC

My Commission Expires: 3/1/07

**BEFORE THE
PUBLIC SERVICE COMMISSION
OF MARYLAND**

**IN THE MATTER OF THE IMPLEMENTATION
OF THE FEDERAL COMMUNICATIONS
COMMISSION'S TRIENNIAL REVIEW ORDER**

*

CASE NO. 8983

**TESTIMONY
OF
DOUGLAS DAWSON**

**ON BEHALF OF THE STAFF
OF THE
PUBLIC SERVICE COMMISSION OF MARYLAND**

March 12, 2004

1 **Q1. Please state your name, company and business address.**

2 A1. My name is Douglas A. Dawson. I am a founder and owner of CCG
3 Consulting, Inc. ("CCG"), located at 6811 Kenilworth Avenue, Suite 300,
4 Riverdale, Maryland, 20737.

5 **Q2. What is your background?**

6 A2. My background is included in my CV as Attachment I to this testimony.

7 **Q3. What is your role in this proceeding?**

8 A3. I have been hired by the Maryland Commission as a consultant for the
9 Commission Staff. My contract requires me to provide appropriate
10 technical advice and to serve as an expert witness. This testimony is to
11 look at one specific issue, the cut-off point for determining mass market
12 vs. enterprise customers. In its Triennial Review Order¹ ("TRO"), the
13 Federal Communications Commission ("FCC") directed state
14 Commissions to address this issue. Specifically, in paragraph 497 of the
15 TRO the FCC directed:

16 At some point, customers taking a sufficient number of DS0s could
17 be served in a manner similar to that described above for enterprise
18 customers – that is, voice services provided over one or several
19 DS1s . . . Therefore, as part of the economic and operational
20 analysis discussed below, a state must determine the appropriate
21 cut-off for multi-line DS0 customers as part of its more granular
22 review. This cross over point may be the point where it makes
23 economic sense for multi-line customers to be served via a DS1
24 loop.
25

¹ In the Matter of the Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers, Report and Order on Remand and Further Notice of Proposed Rulemaking, CC Docket Nos. 01-338, 96-98, 98-147, FCC 03-36 (Rel. August 21, 2003)

1 I started my analysis by using the most recently approved
2 Unbundled Network Element ("UNE") rates in Maryland. My analysis was
3 designed to identify the cross over point where the cost of provisioning a
4 T1² or of using a number of UNE-P arrangements is nearly identical.

5 Regardless of the provisioning method a CLEC will have many
6 other costs in addition to the direct costs of the UNEs. However, for my
7 analysis I have ignored all other costs. Such costs include sales,
8 provisioning, billing, administration, etc. These costs are unique to each
9 CLEC and the level of such costs determines the overall margin and
10 profitability for a given CLEC. However, only direct costs are relevant
11 when looking at the economic breakeven point between provisioning with
12 UNE-P or voice over a T1 because the indirect costs are unlikely to vary
13 as a result of using one means or the other to provide service. Instead, I
14 think a simple examination of the direct costs (loop and switching) can be
15 used to see which provisioning method is most cost effective at a given
16 quantity of lines.

17 **Q4. Did you reach any conclusions?**

18 A4. Yes. Below I have reached a conclusion that the breakeven point in
19 Maryland is seven lines. By that, I mean that it is more cost effective to
20 use UNE-P to provision customers with less than seven voice lines and
21 more cost effective to provision with a T1 for customers with more than
22 seven voice lines.

² T1 is equivalent to DS1.

1 I recommend that the Commission consider seven lines as the
2 cross over point between mass market and enterprise customers. I would
3 further recommend that the Commission allow a CLEC to order UNE-P for
4 a customer with six voice lines or less. Currently the FCC threshold
5 between mass market customers and enterprise customers is four lines³,
6 so this would allow UNE-P to be used for slightly larger customers.

7 **Q5. What was your basic methodology in calculating the cross over**
8 **point?**

9 A5. The first step in the methodology was to look at the cost of supplying
10 service using UNE-P. I then looked at what it might cost to provision using
11 a T1 loop. In looking at costs I decided that I could concentrate on just the
12 direct costs of providing the network – the loops, switching and transport.
13 In addition to direct costs a CLEC will have other costs such as sales,
14 billing, executive, insurance, payroll, etc. While these costs are very
15 important to a given CLEC since they determine total profitability, these
16 additional costs are not necessary to consider for the cross over analysis.
17 Rather, we can limit this comparison to just the costs of the UNE loops,
18 switching and any costs needed to connect UNEs to a switch (backhaul
19 transport).

20 As my analysis will show, for each rate loop zone in Maryland there
21 will be some quantity of lines at one location at which the cost of
22 provisioning with UNE-P will roughly equal the cost of provisioning with a

³ TRO. Paragraphs 430 and 497.

1 T1. At this point, economically, the CLEC could choose to use a T1
2 provisioning method without economic harm. This does not mean that
3 CLECs will do so, and the ability to cut UNE costs is only one of the
4 factors that would go into such a decision.

5
6
7 **Cost of UNE-P**

8 **Q6. What are the direct costs for a CLEC who provisions using UNE-P in**
9 **Maryland?**

10 A6. I define direct costs as the costs of all of the Verizon UNEs and
11 nonrecurring charges needed to provide UNE-P. The amount that a CLEC
12 must pay for UNE-P varies according to exactly what the CLEC
13 purchases. For example, there are differently priced UNE-P lines designed
14 to serve normal business lines, PBX trunk lines and Centrex lines.
15 Additionally, there are optional features that can be purchased along with
16 any UNE-P line. Finally, the cost of provisioning UNE-P varies by the loop
17 rate zone in Maryland, with each of the four zones having different UNE
18 costs.

19 There are several basic components to UNE-P costs. Foremost is
20 the cost of the various UNEs that make up UNE-P. The UNEs included in
21 the UNE-P product include the loop, the switch port, switching, transport
22 and tandem switching. Additionally, I believe one should consider the
23 nonrecurring costs needed to establish a new UNE-P customer.

The basic UNE rates that contribute to a UNE-P line are as follows,
by loop rate zone:

2-Wire UNE Loop – Zone A1	\$ 9.51
2-Wire UNE Loop – Zone A2	\$ 9.55
2-Wire UNE Loop – Zone B2	\$13.56
2-Wire UNE Loop – Zone B1	\$20.57
Switch Port (All Zones)	\$ 1.32
Switching per Originating MOU	\$0.001243 per MOU (all Zones)
Switching per Terminating MOU	\$0.002090 per MOU (all Zones)
Transport per MOU	\$0.000113
Tandem Switching per MOU	\$0.000233

The UNE loop charge and the UNE switch port charge are flat rated recurring monthly fees. However, since switching is billed by the minute of use (MOU), in order to get an average monthly UNE-P cost for switching we must assume an average number of minutes for each line served. As one can see from the rates, there is a separate rate for originating minutes and for terminating minutes to a UNE-P line. The actual minutes used by any given customer varies widely. However, after having looked at the real billing records of a number of CLECS I conclude that the average number of total minutes used by a typical customer (both originating and terminating minutes) does not vary that widely across the country. In my experience, with all of the CLECs I have examined, I have seen total minutes range between 1,400 MOU per customer per month and 2,000 MOU per customer per month. Most CLECs are near the center of that range from 1,600 to 1,700 MOU per average customer per month. Therefore I have elected to use 1,700 average MOUs per customer in

1 calculating the cost of the switching UNE. The impact on the cross over
2 analysis is minimal even if I were to vary that figure upward or downward
3 by a few hundred minutes per month.

4 I note that tandem switching is not billed to the UNE-P provider for
5 all MOU. Verizon bills the UNE-P provider tandem switching for local calls,
6 but they bill the tandem switching for long distance calls directly to the IXC
7 who ultimately carries the minute. I have estimated that 70% of the
8 minutes are local minutes for purposes of this calculation. Finally, I note
9 that my assumptions on tandem switching are somewhat irrelevant since
10 this is charged to the CLEC whether they use UNE-P or T1 provisioning –
11 thus, whatever amount is charged is the same for both methods and does
12 not affect the breakeven calculation.

13 **Q7. Are there additional costs of providing UNE-P?**

14 A7. Yes. In addition to the monthly recurring costs of obtaining the UNE-P
15 elements from Verizon, a CLEC will incur nonrecurring costs when
16 establishing a new UNE-P line. There are two primary charges for creating
17 a UNE-P line in Maryland – the service order charge and the installation
18 charge. There are other potential fees, such as a manual processing fee
19 for CLECs who do not interface with the Verizon mechanized UNE
20 provisioning system. I have chosen to exclude these other fees since they
21 are not always charged or are optional and avoidable for the CLEC.

22 In the TRO, in Paragraph 471 the FCC cited testimony that the
23 average length of service for a CLECs customers is between 18 and 24

months. In recognizing the nonrecurring costs I decided to amortize these costs over the 18 month time period so that I could express non-recurring costs on a monthly basis.

The non recurring UNE-P costs in Maryland are as follows:

Service Order Charge	\$ 6.70
Installation	\$ 9.52
Total	\$16.22

Amortized over 18 months \$ 0.90 per line per month

Q8. If you combine all of these cost elements, what then is the total monthly direct cost of a UNE-P line?

A8. Assembling these various component costs, the cost of a UNE-P line in Maryland, by loop rate zone is as follows:

	Zone A1	Zone A2	Zone B2	Zone B1
UNE 2-Wire Loop	\$9.51	\$9.55	\$13.56	\$20.57
Switch Port UNE	\$1.32	\$1.32	\$1.32	\$1.32
<u>UNE Switching</u>				
Avg Orig MOU	850	850	850	850
Avg. Term MOU	850	850	850	850
Orig MOU UNE Rate	\$0.001243	\$0.001243	\$0.001243	\$0.001243
Term MOU UNE Rate	\$0.001090	\$0.001090	\$0.001090	\$0.001090
Total UNE Switching	\$1.98	\$1.98	\$1.98	\$1.98
Transport Rate	\$0.000113	\$0.000113	\$0.000133	\$0.000133
Transport	\$0.19	\$0.19	\$0.19	\$0.19
Tandem Sw. Rate	\$0.000233	\$0.000233	\$0.000233	\$0.000233
Tandem MOU	1,190	1,190	1,190	1,190
Tandem Switching	\$0.28	\$0.28	\$0.28	\$0.28
UNE-P Nonrecurring	<u>\$0.90</u>	<u>\$0.90</u>	<u>\$0.90</u>	<u>\$0.90</u>
Total UNE-P Costs	\$14.18	\$14.22	\$18.23	\$25.24

The following chart shows the cost of buying multiple UNE-P lines, for each loop rate zone, from 1 to 12 lines.

Chart 1 – Cost of UNE-P by Loop Rate Zone

Quantity	Zone A1	Zone A2	Zone B2	Zone B1
1	\$14.18	\$14.22	\$18.23	\$25.24
2	\$28.36	\$28.44	\$36.46	\$50.48
3	\$42.54	\$42.66	\$54.69	\$75.72
4	\$56.72	\$56.88	\$72.92	\$100.96
5	\$70.90	\$71.10	\$91.15	\$126.20
6	\$85.08	\$85.32	\$109.38	\$151.44
7	\$99.26	\$99.54	\$127.61	\$176.68
8	\$113.44	\$113.76	\$145.84	\$201.92
9	\$127.62	\$127.98	\$164.07	\$227.16
10	\$141.80	\$142.20	\$182.30	\$252.40
11	\$155.98	\$156.42	\$200.53	\$277.64
12	\$170.16	\$170.64	\$218.76	\$302.88

The Cost of a Voice T1

Q9. How did you calculate the cost of using a T1 as an alternate type of provisioning.

A9. There are several cost components to provision voice lines using a T1. The largest single cost is the cost of the T1 loop. In addition, there is the cost for providing switching for the voice lines on the T1. The switching for a voice T1 is not available on a UNE basis and a CLEC who uses a T1 for voice must either self-provision the switching or use outsourced switching. In addition to these two costs there are the additional costs of collocation

1 and of backhauling the T1 UNE loops back to the CLEC's switch from the
2 collocation. I have also assumed that a CLEC using T1 provisioning will
3 still need to pay for local tandem switching. Finally, just as with UNE-P
4 there are nonrecurring costs associated with buying the T1 loop.

5 **Q10. What are your assumptions for these cost components of providing**
6 **voice using a UNE T1?**

7 A10. First, the T1 UNE loop costs are as approved by the Maryland
8 Commission. Currently these loop costs, by loop rate zone are:

9	Zone A1	\$75.65
10	Zone A2	\$76.96
11	Zone B2	\$89.15
12	Zone B1	\$99.44

13
14 This docket has no data concerning the cost, on a per line basis, of
15 self-provisioned switching. The cost for self-provisioned switching varies
16 widely. In my experience switching costs are very much related to
17 economy of scale, and on a per line basis switching is much less costly for
18 a large company or for a fully utilized switching system than for a small
19 system or an underutilized system. In this case we are trying to determine,
20 on a per line basis, what switching costs might be when a company
21 provides their own switch. In my experience, for CLECs who are large
22 enough to be cost efficient, self-provisioned switching costs vary from
23 around \$2 to \$4 per line per month. There are a number of components to
24 this cost. First is the cost of the switch, usually reflected as depreciation
25 expense. The next biggest expense is usually the labor for the technicians

1 who operate and maintain the switch. Switching labor includes the typical
2 overheads like benefits, vacations and training. Another significant cost is
3 software upgrades, which can be either capitalized or expensed by
4 CLECs. The final cost of any magnitude is the cost of spares and repairs
5 of hardware. Since the cost of self-provisioned switching can be variable, I
6 am going to treat this as a range of costs and look at the cross over point
7 if switching were \$2 per line per month and also if switching were \$4 per
8 line per month.

9 It is also theoretically possible for a CLEC to outsource switching.
10 However, other than by using RBOC UNEs, the FCC in the TRO found
11 that there was almost no evidence nationwide of leased switching by
12 CLECs⁴. I believe this is starting to become a viable product and I do
13 expect to see outsourced switching in the near future in many markets.
14 However, for this analysis I ignored outsourced switching since there is no
15 specific cost data, and no evidence that outsourced switching alternatives
16 have been established in Maryland.

17 Finally, I assume that the CLEC will still be billed for local tandem
18 switching. While a few CLECs have their own tandem switches or use
19 tandem switches of others, the vast majority of CLECs use the RBOC
20 tandems and are billed for such use. My assumption is that the amount
21 paid for tandem switching by a CLEC would be the same whether they

⁴ TRO Paragraph 442.

1 used UNE-P provisioning or T1 provisioning, so the impact is neutral on
2 the breakeven calculation.

3 **Q11. You said there were costs for collocation and backhaul when**
4 **provisioning voice with T1s. Can you explain what this means and**
5 **give your estimates of the cost?**

6 A11. Yes. When a CLEC uses UNE-P they don't have any direct charges for
7 collocation, since they are using Verizon equipment. However, if they were
8 to convert UNE-P lines to provisioning with T1s, then they would have to
9 arrange to meet the loops in the Verizon central office. This is done by
10 collocation where the CLEC will place some equipment in the Verizon
11 office that is capable of accepting the Verizon loops and aggregating
12 those loops into a T1 format. The CLEC also will incur backhaul transport
13 costs. This would be whatever costs are necessary to carry the UNE loops
14 from the collocation in the Verizon office back to the CLEC's switch.

15 These costs vary tremendously among CLECs and even vary by
16 central office. There is a wide variety of ways to collocate and many
17 different types of equipment that can be put in the Verizon offices to
18 accept loops. The transport costs can also vary widely. CLECs can use
19 concentration on the loops, with GR-303 Digital Loop Carrier ("DLC"), so
20 that they can squeeze multiple loops into one path. CLECs also have
21 many choices on how to acquire transport between their facilities and
22 Verizon. They can lease retail transport from Verizon, lease dark fiber,
23 build a fiber, or lease from some other entity. Finally, transport costs vary

1 because of the distance between the collocation and the CLEC central
2 office, with costs generally increasing with distance.

3 In my experience, the costs of collocation and backhaul can vary,
4 on a per line basis from between \$1 per line per month and \$2 per line per
5 month. Even these figures assume some economy of scale - a CLEC who
6 maintained a collocation for only one T1 would see a much higher cost per
7 line.

8 **Q12. You also said that there is a nonrecurring component to provisioning**
9 **a T1 UNE loop. What are these costs?**

10 **A12.** There are two primary charges when purchasing a T1 UNE loop – the
11 service order charge and the installation charge. There are other potential
12 fees, such as an additional fee when field installation is required. I have
13 chosen to ignore these other fees since they are not always charged or
14 are optional and avoidable for the CLEC. In looking at UNE-P
15 nonrecurring costs I looked at an 18 month time frame. I will keep that
16 same time frame just to make the two costs comparable.

17 The non recurring costs for buying a T1 UNE loop in Maryland are
18 as follows:

19 Service Order Charge \$ 6.70

20 Installation \$40.27

21 Total \$46.97

22 Amortized over 18 months \$ 2.61 per month for the whole

23 T1

Q13. Can you summarize all of these various costs?

A13. Yes. In doing so I have created a range of costs, since I have estimated both a low and a high cost for switching and for collocation and backhaul. I will summarize the costs with the low and the high from these estimates.

	Zone A1	Zone A2	Zone B2	Zone B1
UNE T1 Loop	\$75.75	\$76.96	\$89.15	\$99.44
T1 Loop Nonrecurring	<u>\$2.61</u>	<u>\$2.61</u>	<u>\$2.61</u>	<u>\$2.61</u>
Subtotal T1 Costs	\$78.26	\$79.57	\$91.76	\$102.05

To these costs must be added the cost of in-house switching and the cost of backhaul and transport. As estimated earlier, the cost of in-house switching, when calculated on a per-line basis, ranges from \$2 to \$4 per line per month. I have estimated the cost of backhaul and transport to range from \$1 to \$2 per line per month. Together, these costs vary from a low of \$3 per line per month to a high of \$6 per line per month.

The following two charts show the direct costs of providing a voice T1, depending on how many voice lines are on the T1. The first chart assumes the lowest cost per line of switching and backhaul, the second chart the highest estimate. The way to read these charts is per the following example. In Chart 2, the cost of a voice T1 in Zone A1 with seven voice lines is shown as \$99.26. This represents the cost of a T1 UNE loop, plus the cost of in-house switching, plus the cost of backhaul and transport. These costs represent the direct costs of providing voice over a T1, in this case, a T1 with seven voice lines.

1

2 **Chart 2 - Low Estimate of Voice T1 Cost, by Quantity of Voice Lines**

Quantity	Zone A1	Zone A2	Zone B2	Zone B1
1	\$80.54	\$81.85	\$94.04	\$104.33
2	\$82.82	\$84.13	\$96.32	\$106.61
3	\$85.10	\$86.41	\$98.60	\$108.89
4	\$87.38	\$88.69	\$100.88	\$111.17
5	\$89.66	\$90.97	\$103.16	\$113.45
6	\$91.94	\$93.25	\$105.44	\$115.73
7	\$94.22	\$95.53	\$107.72	\$118.01
8	\$96.50	\$97.81	\$110.00	\$120.29
9	\$98.78	\$100.09	\$112.28	\$122.57
10	\$101.06	\$102.37	\$114.56	\$124.85
11	\$103.34	\$104.65	\$116.84	\$127.13
12	\$105.62	\$106.93	\$119.12	\$129.41

3

4 **Chart 3 - High Estimate of Voice T1 Cost, by Quantity of Voice Lines**

Quantity	Zone A1	Zone A2	Zone B2	Zone B1
1	\$82.54	\$83.85	\$96.04	\$106.33
2	\$86.82	\$88.13	\$100.32	\$110.61
3	\$91.10	\$92.41	\$104.60	\$114.89
4	\$95.38	\$96.69	\$108.88	\$119.17
5	\$99.66	\$100.97	\$113.16	\$123.45
6	\$103.94	\$105.25	\$117.44	\$127.73
7	\$108.22	\$109.53	\$121.72	\$132.01
8	\$112.50	\$113.81	\$126.00	\$136.29
9	\$116.78	\$118.09	\$130.28	\$140.57
10	\$121.06	\$122.37	\$134.56	\$144.85
11	\$125.34	\$126.65	\$138.84	\$149.13
12	\$129.62	\$130.93	\$143.12	\$153.41

5

6 **Q14. Now that you have shown the direct cost of provisioning voice using**
7 **UNE-P and the direct cost of provisioning voice using T1s, how do**
8 **you get to the breakeven between the two methods of provisioning?**

1 A14. The breakeven point of direct costs can be done by comparing the cost of
2 providing UNE-P voice in Chart 1 to the high and low cost estimates for
3 provisioning voice using a T1 as shown in Charts 2 and 3.

4 The cross over point between the two provisioning methods is that
5 point where the two methods cost approximately the same amount for the
6 same number of lines. This is not to say that a CLEC will use a T1 at this
7 breakeven point, but that it is economically neutral to do so. Above this
8 breakeven point it is clearly less expensive to provision with a T1 than with
9 UNE-P. Below this breakeven point it is less expensive to use UNE-P.

10 **Q15. What is the cross over point between using UNE-P and T1**
11 **provisioning by loop rate zone?**

12 A15. The breakeven point is expressed in terms of the number of lines required
13 to achieve cost neutrality. Since I have calculated a low and a high cost for
14 provisioning using a T1, the breakeven is shown for the low and the high
15 T1 cost. The breakeven points in Maryland between a T1 and UNE-P is as
16 follows:

	<u>Number of Lines at Cross Over Point</u>			
	Zone A1	Zone A2	Zone B2	Zone B1
Breakeven – Low	7	7	5	5
Breakeven – High	8	8	7	5

26 **Q16. What do these cross over points mean again?**

1 A16. The cross over point represents the number of lines where it is roughly the
2 same cost to provision using UNE-P or voice over T1. For any line
3 quantity smaller than the cross over point it is more cost effective to
4 provision using UNE-P. For any quantity greater than the cross over point
5 it is more cost effective to provision using a voice T1. I have reflected a
6 range of T1 costs that would represent varying efficiencies among CLECs,
7 with a low and a high estimate of costs.

8 **Q17. Do you have any recommendation on how to use this finding?**

9 A17. Yes. I believe these cross over points ought to be used to determine the
10 number of lines at which the Commission ought to make the distinction
11 between a mass market customer and an enterprise customer. By
12 definition, a mass market customer would be most efficiently served by
13 UNE-P (and maybe UNE-L). Such a customer is too small to justify a T1
14 UNE. An enterprise customer would be one who is large enough to be
15 efficiently served by a T1 loop.

16 In my analysis I have a range for the cross over point. I would
17 recommend that the Commission adopt the low end of the cross over
18 point. This is where the most efficient CLECs would be at a cost neutral
19 position between the two types of provisioning. The higher breakeven
20 reflects a CLEC with higher costs, and I'm not sure the Commission ought
21 to set a threshold that recognizes higher costs.

1 In summary, I would recommend that the definition of mass market
2 customer in Maryland be one where the customer has less than seven
3 lines. An enterprise customer would be one that has seven or more lines.

4 I note that loop rate zones B1 and B2 have a lower breakeven point
5 of than seven lines. The lower breakeven is the result of the relatively
6 higher cost of a 2-wire loop in these rate zones. The rate zones under
7 examination in this proceeding are predominantly zones A1 and A2 that
8 make up the metropolitan markets of Baltimore and Washington.
9 Accordingly, it is appropriate to use the breakeven point for those zones. I
10 would not, however, recommend that we have a separate definition for the
11 more rural rate zones and would recommend a seven line cross over point
12 be recognized in those zones as well. The evidence gathered in this
13 Docket has demonstrated that the competition in Maryland primarily exists
14 in rate zones A1 and A2. If the Commission is to recognize the breakeven
15 point for the urban rate zones it would seem appropriate to allow for larger
16 UNE-P customers in the rural zones as well, regardless of the current
17 UNE pricing in those zones.

18 **Q18. Many CLECs sell data along with voice. Does considering data**
19 **change your answer?**

20 A18. That is a difficult question. It is true that many CLECs who use a T1
21 provisioning method sell a combination of voice and data. To the extent
22 that a CLEC can gain additional revenue by transporting a customer's
23 data, they would be using the capacity of a T1 more efficiently.

1 However, not all CLECs sell data. My cross over point has been
2 calculated on the basis of just voice traffic as was suggested by the FCC.
3 If by selling data a CLEC can justify using a T1 to provision to a customer
4 with fewer than seven lines, they have, by definition, defined such a
5 customer as an enterprise customer. I think the use of a T1 is an
6 automatic trigger for considering a given customer as an enterprise
7 customer.

8 The threshold I have calculated would apply only to voice
9 customers. In a practical application this threshold is that point where the
10 RBOC would not sell UNE-P to a CLEC. Thus, with my threshold a CLEC
11 could order up to six UNE-P lines for a given customer location. I don't
12 think the fact that some CLECs offer data has any bearing on the cross
13 over point for UNE-P customers.

14 **Q19. DOES YOUR TESTIMONY TAKE INTO ACCOUNT THE EFFECT OF**
15 **THE MARCH 2, 2004 RULING OF THE UNITED STATES COURT OF**
16 **APPEALS FOR THE DISTRICT OF COLUMBIA?**

17 A19. No. All of Staff's testimony presents Staff's conclusions regarding its
18 analysis of the FCC TRO up to the filing date of March 5, 2004 but did not
19 make any changes or adjustments as a result of the March2, 2004 ruling
20 of the Court of Appeals. However, it is possible that the issue of the
21 number of lines that can be allowed for UNE-P may still be a valid
22 question for the Commission to consider. It is not clear to me that the
23 Court's ruling overturned the need to look at this specific question.